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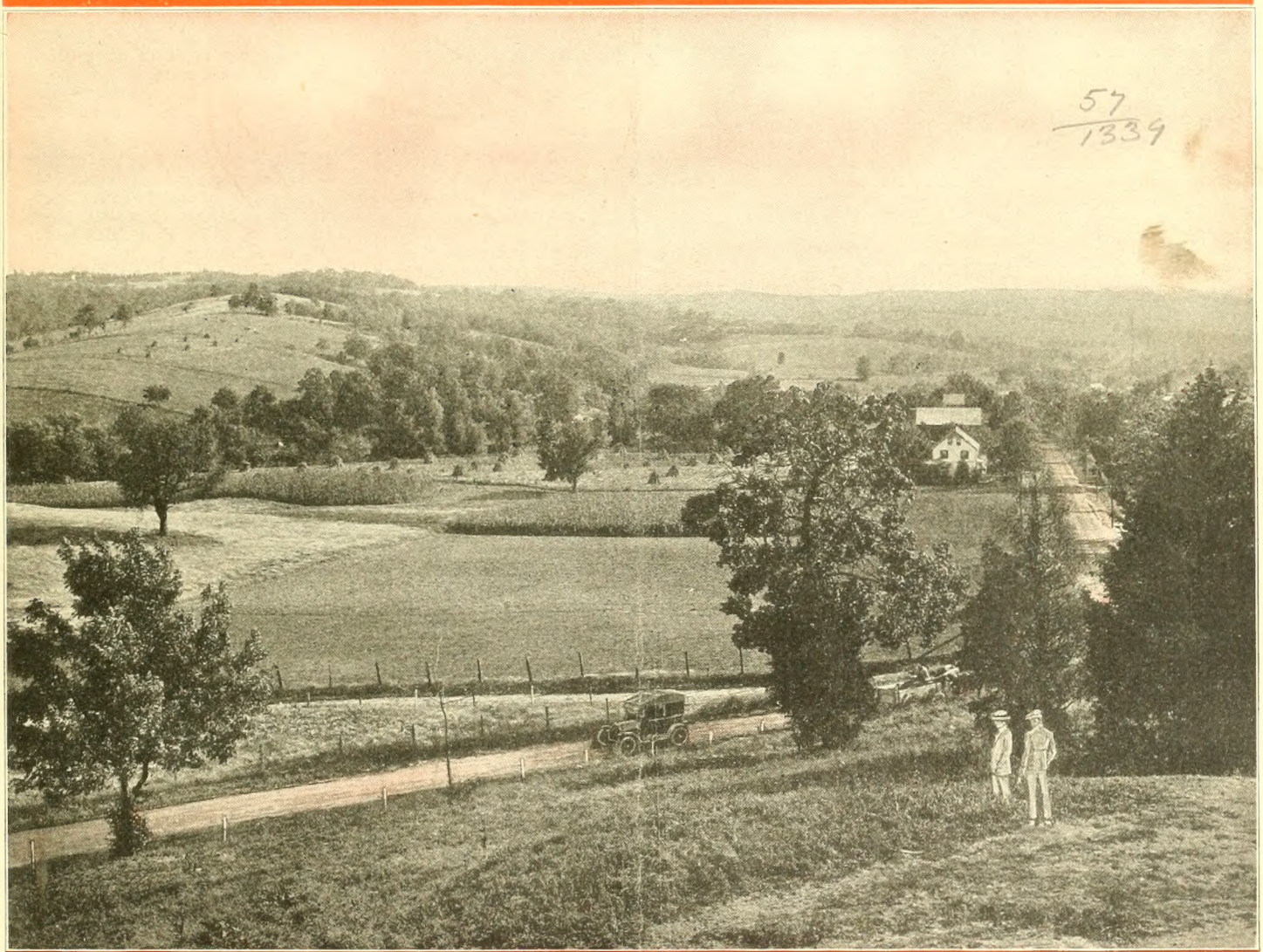
# Missouri

Missouri



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AGRICULTURAL SERIES NO. 7

United States Railroad Administration

AGRICULTURAL SERIES NO. 7

United States Railroad Administration

Monograph

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1919

## The Purpose of This Booklet

### How the Railroads Can Help the Homeseeker

This booklet is issued by the Agricultural Section of the United States Railroad Administration, J. L. Edwards, Manager, Washington, D. C.

The information was compiled by the Agricultural Representatives of the railroads serving the State of Missouri:

The articles on the State's more important industries and possibilities are contributed by recognized authorities.

The purpose of the booklet is to help direct ambitious and industrious home-makers and producers desiring to better their condition in life, to localities where they should meet with success, in proportion to their resources and ability.

Owing to limited space, detailed information is not attempted, but should the reader desire any special information on any subject connected with any branch of farming, or stock raising in any locality in Missouri **it can be secured by writing to or calling upon the address stamped on the last page of this booklet.**

State fully just what is desired. Prompt and dependable information will be furnished.

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Jefferson City, August 1, 1919

The State of Missouri was endowed by Nature with a multitude of varied treasures of soils and minerals, located as it is in the heart of the corn belt, with the very largest measure of rivers, and being the best watered of any of the states in the American Union.

The experience of the centuries has established at least one unquestionable and undebatable fact, namely, that the permanency and the profitableness of the agriculture of a community or country is finally based upon the development of its live stock and the quality of its citizenship.

No other state in the Union is in such splendid financial condition as is Missouri. She has no floating indebtedness of any kind and only a very small bond issue covering the cost of the new capitol, which will be retired in a few years. Property is assessed in the State at about one-third of its true value. The State rate is fifteen cents per hundred, in other words, five cents per hundred on its face value. No other state can approach such a low tax rate.

Fifty-three and seven-tenths per cent of the gross revenue receipts of Missouri are set aside for educational purposes. Just now a great boom for good roads is on in the State. We expect within five years to have completed a system of 6,000 miles of hard-surfaced roads in the State.

Missouri is the eighteenth State in area, yet is the fifth State as compared to the other forty-seven units of our Government, this being based upon the tabulations of the years, counting small fruits and all the smaller lines of farm production, along with wheat and the major crops. Viewed from the larger angle of profitable live stock production in its broader economic relation to agriculture and home economics, Missouri ranks still higher as among the very first in apples, corn, hogs and cattle, and other rural industries—and as the land of opportunity for country life investments and for home-building we believe that it is at this time the peer if not the superior of any state in any country. Allow me to congratulate Missourians upon this compliment being paid by the United States Railroad Administration in the issuance of this deserving booklet on behalf of this State, "Missouri—The State of Diversified Plenty."

Frederick D. Gardner

Governor

Dept. of Ag.
NOV 26 1919

Jefferson City, Mo., August 19, 1919

Missouri grows (and grows well) more kinds of field and fruit and garden crops, and produces more kinds of live stock profitably, than any other state under "The Flag That Never Knew Defeat." Second in winter wheat, third in live stock, seventh in population, ninth in wealth, and eighteenth in land area, the farm production (including field, farm and forest) amounted, in the year 1918, to the colossal grand total of $940,504,910. "A Properly Balanced State," at every angle of agricultural effort, a good place in which to live, the coming center of the dairy industry, Missouri only needs to be better known—and when better known our land values will increase a hundred per cent.

Missouri is indeed "A Land of Diversified Plenty." This Commonwealth is not famous for any one particular crop, but, instead, it is celebrated for the unmatchable variety of its products of field and garden and orchard. Missouri does not place all of its eggs into any one basket. In 1917 fifth in farm crops, as compared to the other forty-seven states of the American nation, and outranking all states with 124 per cent on condition total of all standard crops. (U. S. Report, end of growing season.) Our land surface covers 43,958,280 acres. Of this area 34,591,248 acres are in 277,244 farms, averaging 124.8 acres each. That Missouri is also a "Land of Opportunity" *today* for the homeseeker and investor is evidenced by the fact that millions of acres still await the dairyman, the horticulturist, and the general farmer yet to come from other states where land is selling from five to ten times more per acre than the price at which new land can now be bought in Southern and many Central Missouri counties. This booklet we believe to be a messenger of absolute truth, portraying without exaggeration many of our present possibilities in profitable agriculture.

Jewell Mayes

Secretary, State Board of Agriculture

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## Missouri Crops and Products in 1918

E. A. Logan and Jewell Mayes, of the United States Department of Agriculture and State Board of Agriculture.

The State of Missouri produced in 1918, in farm, garden and orchard crops, $462,856,000; in other products of the farm, $477,648,910, totaling in farm production, $940,504,910. Besides this, the live stock on hand, on January 1, 1919, worth $406,862,000 as follows:

| | Number | Value |
|---|---|---|
| Horses | 1,040,000 | $95,680,000 |
| Mules | 374,000 | 43,384,000 |
| Milch cows | 919,000 | 68,006,000 |
| Other cattle | 1,782,000 | 88,031,000 |
| Sheep | 1,539,000 | 20,315,000 |
| Hogs | 4,943,000 | 91,446,000 |

| | |
|---|---|
| Total value of live stock | $406,862,000 |
| Total value of all farm products | 940,504,910 |
| *Total value, products of the soil* | *$1,347,360,910* |

A bunch of Missouri's 919,000 dairy cows. Milk and milk products, 1918, $101,751,500

# Missouri

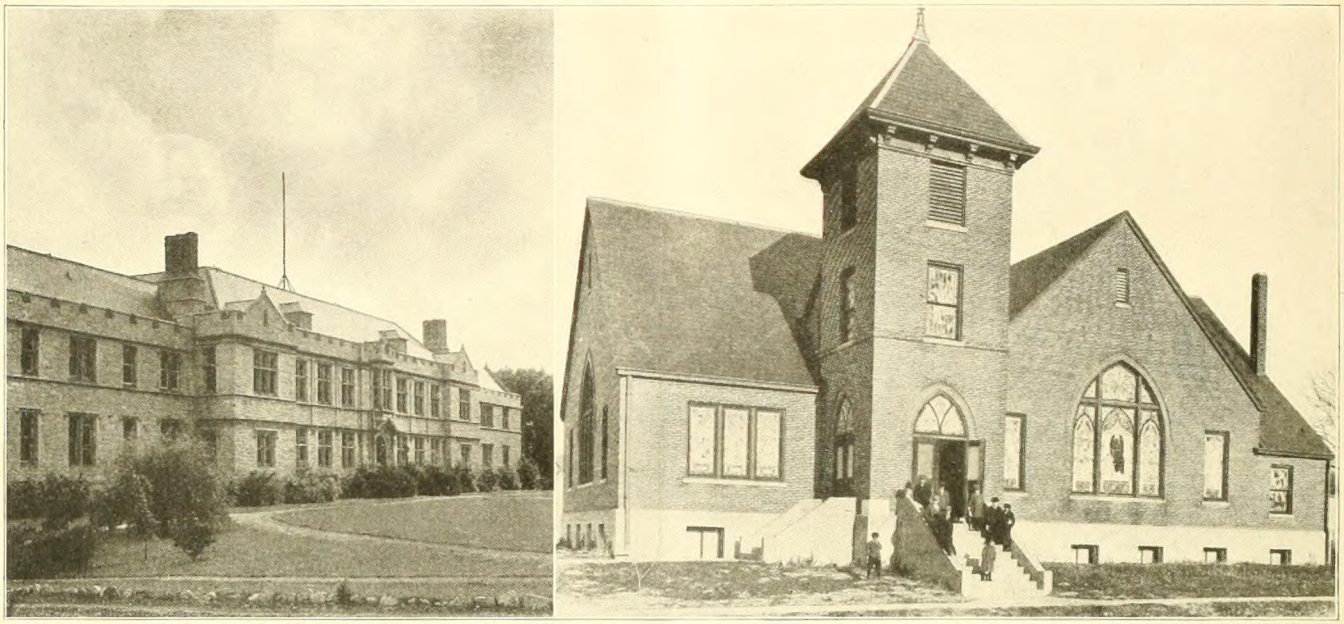
M. F. Miller, Acting Dean, Missouri Agricultural College

Missouri is a state of great resources. Its soils, its mines, its fuel supply, its water power, its transportation facilities, both by rail and water, its large production of raw materials and its central location in the Mississippi Valley offer exceptional opportunities for the farmer, the manufacturer, and the man engaged in commerce. The strategic position which Missouri occupies with reference not only to the states of the Middle West but also to the South and Southwest, insures a great commercial development. The State is a gateway to the states of the South and Southwest. The fact that Missouri has two of the thirteen Farm Loan Banks, one located in each of its two large cities, indicates the importance of her location.

In agricultural opportunities Missouri holds a high place. Located at the very agricultural center of the United States and extending from the oat growing section of the North to the cotton growing region of the South, the State possesses a very wide range of cropping possibilities. No state produces a larger number of staple crops in quantity. Corn, oats, wheat, clover, alfalfa, timothy, bluegrass, cotton and fruit are extensively grown. Special crops, such as peaches, strawberries, melons, tomatoes and other truck crops, have a great commercial importance in those sections to which they are particularly adapted. It has been said with truth that no state is so nearly self-supporting in all the essentials to civilization as the State of Missouri. Abundant foodstuffs and clothing materials, rich mineral resources, including great quantities of coal and timber, abundant water power, and unlimited supplies of road materials, combine to supply the needs of the people.

In total value of farm property, Missouri ranks fifth among the states, and she stands high in the production of the more important staples—corn, wheat, oats, cattle and hogs. The reason for this advance position lies primarily in the wide extent of fertile soil and in a climate which is both favorable for crop and animal production. No state has a wider range of agricultural lands. The black Corn Belt prairies occupy a large share of the northern half of the State, while the rich alluvial lands of the Missouri and Mississippi rivers include an area equal to more than ten counties. No state, excepting those bordering the Mississippi to the south has such large areas of this rich alluvium. Iowa and Illinois alone surpass Missouri in the extent of fertile lands.

The opportunities for the grain growers in Missouri are at once evident when the large extent of productive soil is considered. The largest corn farm in the United States is located in northwestern Missouri. The acreage of wheat is increasing. Under stress of war conditions the area of wheat in Missouri was



Missouri takes pride in her rural churches and schools. School enrollment, 1918-1919, was 410,539

increased more than 25%. The oat crop is a staple one throughout the northern half of the State. Combined with clover and timothy these three staple grain crops—corn, oats and wheat—are grown in practically all parts of the State. They are the basic crops of the the State's agriculture.

The opportunities for the live-stock producer are as great as are those for the grain grower. Missouri could scarcely be better situated so far as location, soil and climate is concerned, for the development of the highest types of domestic animals. The principal grain feeds are produced in great quantities. The location is far enough south to escape the severe rigors of winter and far enough north to avoid the disadvantages which the southern cattle grower must meet. Bluegrass grows almost everywhere. Probably no state has a larger acreage. In the midst of a large population, with the principal packing cities on the south, north and east, market facilities for live stock are excellent. Also the surplus breeding animals are readily absorbed by the rangers of the West and Southwest. There is no state in the Union in which farmers are so largely engaged in live-stock production as are the farmers of Missouri.

The opportunities for the fruit grower, while not so general as those of the grain and live-stock farmer, are just as good, providing the right location is selected. The brown "loess" soil occupying the high land bordering the Missouri and Mississippi rivers is said by horticulturists to be the best apple soil in the world. The red limestone lands of southern Missouri produce both apples and small fruits, while in suitable locations peaches are commercially profitable. Soil and climatic conditions combine to give excellent quality to these fruits.

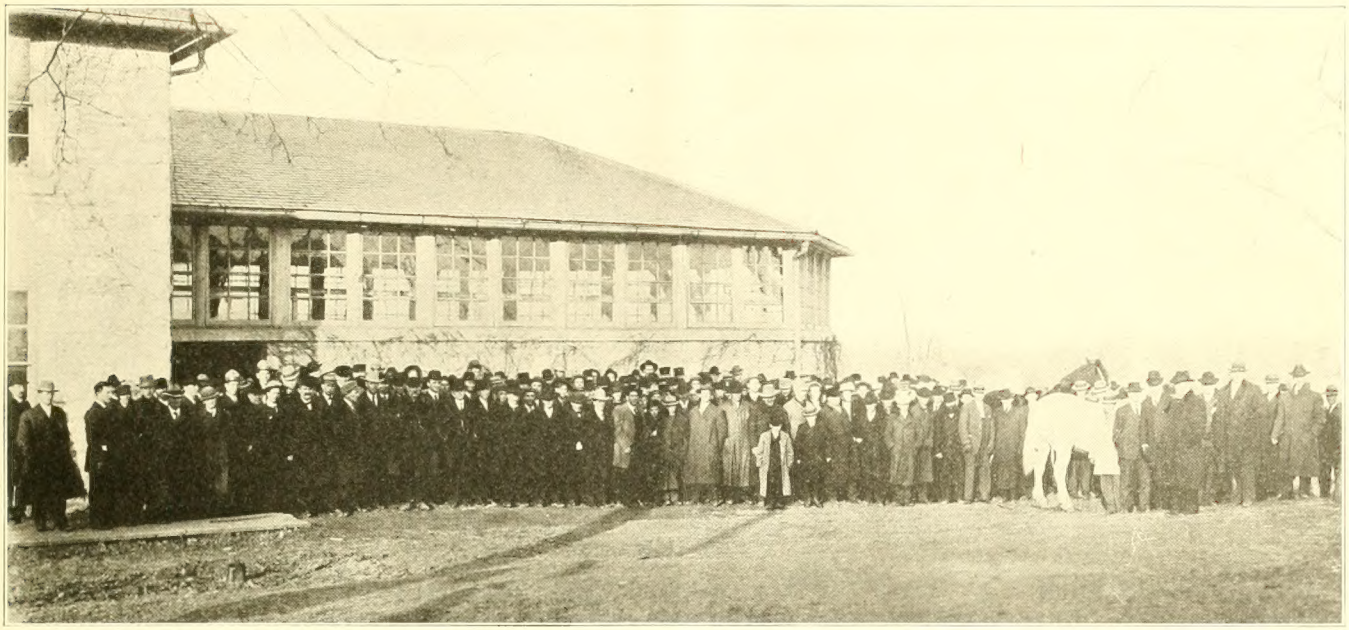
The farmer seeking a new location will find many opportunies in this State. Land similar in character to that of the states east and north sells at a much more moderate figure, although land values are constantly increasing.

## Schools

By Sam A. Baker, Superintendent of Public Schools for Missouri

The Missouri enrollment for the school term of 1918-1919 was 410,539. In per cent of school population of children from five to eighteen years of age enrolled, Missouri has 81.8 per cent. At the present time Missouri has 160 consolidated school districts, 137 of which offer high school courses. The number of consolidated schools has increased in the last ten years. The classified high schools of Missouri have increased from 296 to 605. The number of volumes in the libraries of the public schools of the State the past school year are approximately 1,894,204. In addition to the high schools Missouri has forty-one private academies, sixteen junior colleges, eleven private colleges and universities belonging to the College Union. There is one State University and five teachers' colleges in this State.

The salaries of school teachers have been increased for the past four or five years. There has been a



Missouri farmers at a horse-judging contest. Missouri has over a million horses—value, over $100,000,000

marked increase this year. The county superintendents have had an increase of fifty per cent. The State has organized a department of vocational education under the provisions of the Smith-Hughes Act. The Legislature appropriated $205,000 to meet the Federal grant. A full time compulsory attendance law has been passed and part time schools provided for pupils who did not, or could not finish the grade work. Provisions have also been made for the establishment of schools, under certain conditions, for the blind, deaf and feeble-minded. On the whole, Missouri does a good part by the boys and girls of the State.

The test of all educational effort is literacy and at present this State stands among the upper third of the states of the Union having the lowest per cent of illiteracy.

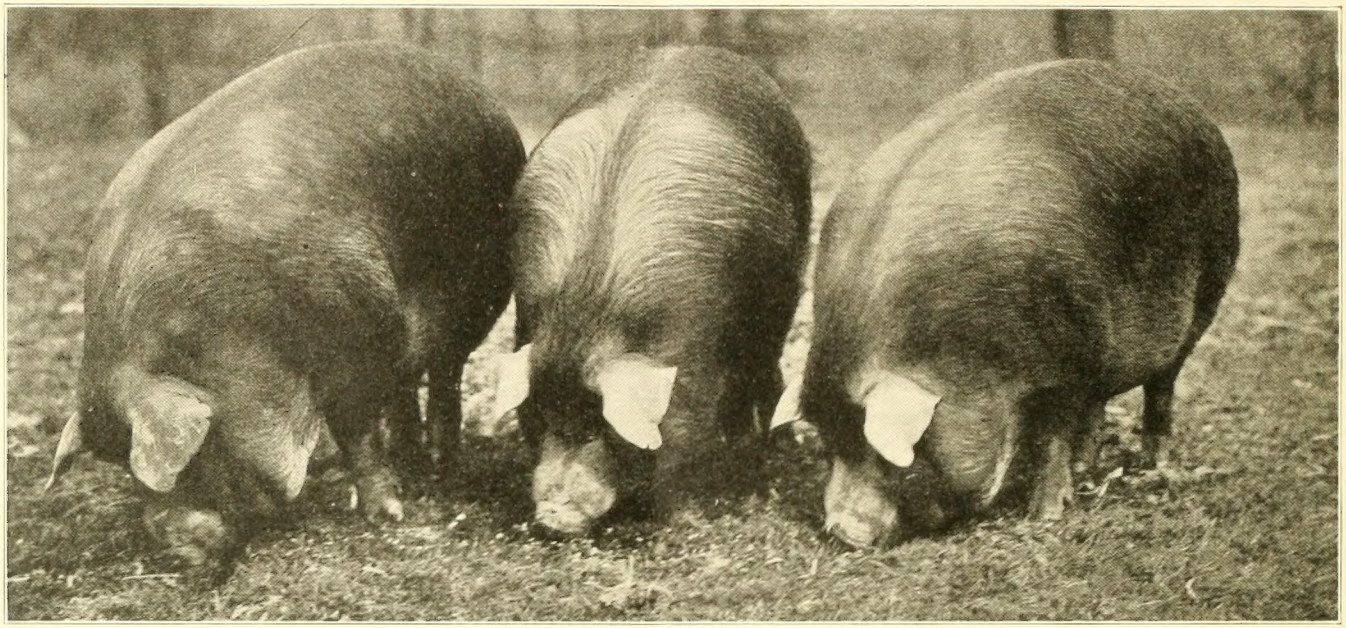
## Community Life

C. C. Taylor, Department of Sociology, University of Missouri

Community spirit and rural Missouri are literally synonymous terms. The first impression a stranger gets of the rural people of Missouri is of their wholesome and thorough going hospitality. It is not proverbial or traditional, it is simply natural for Missourians. This State, especially certain sections of it, was settled earlier than any other part of the Central Valley. To say that a state is intensely rural and that the rural settlers are of old standing is always to say two things: that they have the old pioneer individualism and that they have a hospitality never found away from pioneer conditions. There is no question but what this individualism has been a hindrance to general co-operative community development in the State. Missouri has not the display of co-operative enterprises that some of the other states have. Missouri is just getting started in this field and there is no question but what the general spirit of hospitality which is manifested toward both strangers and neighbors offers fertile ground for some of the finest rural community organization work yet developed.

The agencies having most directly to do with strictly community development are: the Extension Division of the College of Agricuture, the Farm Bureaus, the State Sunday School Association, the Federation of Missouri Clubs, the State Department of Agriculture, the United States Department of Agriculture, a number of commercial extension services and, of course, the rural press and numerous volunteer agencies of organization.

There are approximately 10,000 churches in the State and eighty per cent of them are in rural communities. The spirit of co-operation between the sects in local communities and between denominations in the State are but the beginnings of "cashing in" this community spirit. There are many places where two or more denominations use the same buildings on different Sundays and also a goodly number where two or more denominations have joined forces in a community church. The big union Sunday school at Barnett with its project for a Sunday school



Three Missouri "International" prize winners. Missouri stock-growers fully appreciate the value of registered breeding stock

building is one of the notable pieces of rural religious organization.

Probably the best organized effort in community life is being done by the County Farm Bureaus.

## CLIMATE

George Reeder, Meteorologist, U. S. Weather Bureau, Director of the Missouri Section

### Temperature

The highest annual mean temperature is found in the extreme southeastern counties, where it is about sixty degrees, and the lowest in the extreme northwestern counties, where it is slightly below fifty degrees. The variations in the annual mean temperature from year to year rarely exceed three degrees and often are less than one degree.

The warmest month of the year is July, with a mean temperature for the State of seventy-seven degrees, and the coldest is January, with a mean temperature of thirty degrees. The day temperature will quite regularly reach ninety-five degrees, and occasionally exceed 100 degrees. During the winter months the temperature sometimes falls five to ten degrees below zero, but temperatures of twenty below zero are infrequent. During the winter, cold waves occasionally sweep over Missouri and cause falls in temperature of from forty to sixty degrees in twenty-four hours, but periods of severe cold are usually of short duration as are also periods of extreme heat in summer.

### Frost

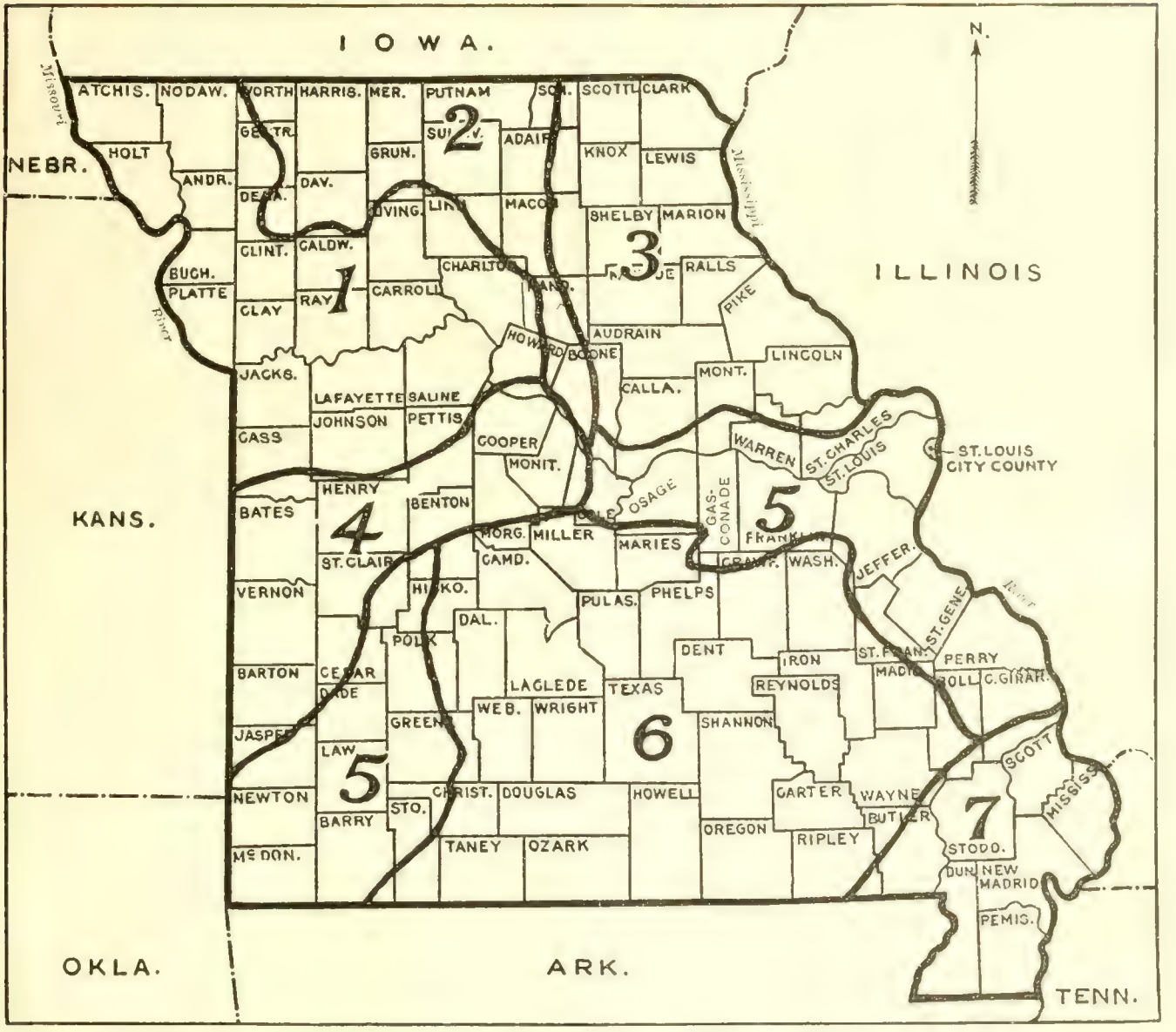
The average date of the last killing frost in spring ranges from April 5th to 20th and the first killing frost in autumn from October 14th to 20th, varying a few days in different parts of the State.

### Rainfall

The average precipitation for each physiographic division and for the State, as computed from all available records for about fifty years to the end of 1918, is as follows:

| | |
|---|---|
| Northwestern plateau | 35.72 inches |
| Northeastern plain | 37.09 inches |
| Southwestern plain | 37.24 inches |
| Ozark plateau | 40.73 inches |
| Southeastern lowlands | 41.36 inches |
| For the State | 38.53 inches |

Nineteen Hundred and One was the only year of the fifty, however, in which the yearly fall was below thirty inches. The yearly distribution of precipitation is favorable for the farmer, as the heaviest rains usually fall during the spring and summer and lightest in the autumn and winter. About 20.85 inches, or about fifty-four per cent of the annual amount, falls during the five principal crop-growing months, April to August, inclusive. The mean annual relative humidity is about seventy per cent.




## SEVEN DISTINCT SOIL REGIONS

M. F. Miller, Department of Soils

The soil and crop conditions in Missouri vary widely. The northern half of the State is typical of the corn belt with corn belt crops predominating. Much of the southern half is rolling to rough in topography with opportunities for live-stock production, dairying and fruit growing. Six counties of southeast Missouri are alluvial in character. It may be said, therefore, that the conditions in Missouri allow a range of crops extending from oat production in the sections bordering Iowa to cotton production in the sections of the extreme southeastern part of the State.

Roughly speaking the State of Missouri may be divided into seven rather distinct soil regions. Naturally there is a wide range of soil types in each of these regions, although the general character of the country is rather distinct in each. These regions are shown on the above map.

The first region, a part of the rolling black prairie land of northwestern Missouri. Timber and water [illegible] are not over-rich. The principal crops grown are corn, oats, wheat, clover, alfalfa, timothy and bluegrass. The region is one of grain and livestock farming. Land values range from $75 to $150 an acre.

The second region a part of north central Missouri, containing a variety of land soils. This region is one of rolling land, having both open timber land and prairie. The soils are generally high in lime and [illegible]. The principal crops are corn, oats, wheat, clover, timothy and bluegrass. The land values range from $60 to $125 an acre.

The third region is that in the level to gently rolling prairie region in northeastern Missouri. The soils are generally fertile, although not as fertile as those in northwestern or north central Missouri. The principal crops grown are corn, oats, wheat, clover, timothy and bluegrass. Land values range from $50 to $125 an acre.

The fourth region a part of the level to gently rolling prairie region of southeastern Missouri. This region somewhat similar to that in northeastern Missouri. The soils are generally fertile. The principal crops grown are corn, oats, wheat, clover, timothy, bluegrass and cane alfalfa. Land values range from $40 to $125 an acre.

The fifth region, a [illegible] known as the Ozark border region. It is a region of rolling land in some cases rough topography, with a wide variety of soils, mainly from limestone. The principal crops grown are corn, oats, wheat, clover, timothy, lespedeza, some alfalfa, and among the fruits, apples and strawberries as well as other small fruits. Land values vary widely, the range extending from $10 an acre on the rougher lands to $150 an acre on the better lands.

The sixth region is that known as the Ozark upland. This is a region of rough topography, mainly the better agricultural lands being found in the valleys and bottoms. There are also opportunities for dairying and in some sections for fruit growing. The soils are generally [illegible], coming from rough and rocky uplands to excellent bottom lands. Land values range from $5 to $10 an acre in the rough regions to $100 an acre in the better valleys and bottoms.

The seventh region is that of the lowlands of the southeastern part of the State in which might be included the great areas of bottom lands along the Mississippi and Mississippi rivers. This is a region of great opportunity. The soils are generally very fertile. Some of them extremely so. Very large areas of corn, wheat, cotton, and in the southern sections, cotton is grown. In certain sections special crops are produced such as watermelons, sweetpotatoes, and rice. Land values range from $40 an acre in the undeveloped areas to $200 an acre in the highly improved regions.

Missouri, "The Home of the Big Red Apple." Missouri's 1917 apple and fruit crop, valued at $14,762,500

## Extension Service of the College of Agriculture

A. J. Meyer, Director Agri. Ex. Service, Columbia, Mo.

Through years of careful study and investigation, the Agricultural Experiment Station has assembled the important facts that farmers need to know in order to farm successfully in any part of the State. Through the Agricultural Extension Service this information is made directly and promptly available to all the inhabitants of Missouri.

Over half the counties of the State have been provided with County Agricultural Agents. More than one sixth of Missouri's counties are supplied with County Home Demonstration Agents. All of these agents are joint representatives of the College of Agriculture and the County Farm Bureaus of the counties in which they are located. They are charged with the responsibility of carrying forward a program of agricultural and rural development. This program is developed by conference between the College and the County Farm Bureau in each county.

As a means of supporting the county work, the state college has a large force of men and women who are specialists in various lines, including animal husbandry, dairy husbandry, poultry husbandry, horticulture, entomology, farm management, farm marketing, farm engineering, veterinary science, soils, farm crops and home economics. These lines receive further specialization by having individual workers give their whole time to special phases of the more important divisions of agriculture. For example, in the animal husbandry work there are provided specialists in swine production, in sheep production and beef cattle production. The home economics group includes specialists in foods, in sewing, in household sanitation and health.

The Agricultural Extension Service issues circulars on practically every phase of farming and home making. These circulars do not attempt to describe investigations but are written for the special purpose of telling in simple, straightforward language, how to perform the various operations of the farm and the home.

The farm boy and girl is not forgotten in the plan of extension service administered by the College. Every community in the State has an equal opportunity, provided it has the initiative, to organize boys and girls between the ages of ten and eighteen years into clubs for the purpose of conducting, under instructions suited to the age and conditions of these young people, such lines of work as corn growing, potato raising, gardening, poultry raising, pig feeding, calf raising, sewing, canning, baking, and various other lines which local needs may indicate.

The significance of the foregoing necessarily brief description of the Agricultural Extension Service lies in the fact that every community in the State has it in its power and within easy reach to take advantage of practical, usable information which has been gathered at great expense in time and money in order that the farmer, the housewife and the farm boy and girl may not have to spend years in learning by experience, facts and methods which are already

Missouri—third in corn—only exceeded by Iowa and Illinois. Missouri's 1917 corn crop was 252,000,000 bushels

available as a result of investigation by the Agricultural Experiment Station and by a study of the experiences of thousands of farmers and farm people under all conditions that exist in Missouri.

## Missouri College of Agriculture and Experiment Station

M. F. Miller, Acting Dean Missouri College of Agriculture

Improvement in agricultural practice in any state is largely dependent upon educational agencies. The colleges of agriculture and experiment stations are the most important of these. The Missouri College of Agriculture and the Agricultural Experiment Station rank among the leading institutions of this kind in the Corn Belt. These institutions are maintained by the State and Federal governments and the work they are doing is solely for the benefit of agriculture. They are the farmers' own institutions and every use should be made of the facilities and of the information which these institutions possess.

The work of the Missouri College of Agriculture includes instruction to large numbers of students at Columbia as well as instruction through the Extension Service designed to reach the people on the farms throughout the State. The instruction at Columbia consists of a four-year course in agriculture, a short agricultural course two winters in length, a special short course in dairying and one in home economics. There is also a week's farmers' short course of a general nature held each winter. This is attended by hundreds of Missouri farmers.

It is the business of the Agricultural Experiment Station to assist the farmer in solving problems which he encounters on the farm. The work consists of experiments along the lines of soil and crop management, fruit-growing, gardening, feeding and breeding of farm animals, breeding and care of poultry, and the control of insects and of plant diseases. These experiments include practically all problems on which the farmer needs help.

## FARM CROPS

W. C. Etheridge, Farm Crop Specialist
Missouri College of Agriculture

**Corn.** Although corn production in Missouri is especially diversified, no other state grows more important kinds of crops on a larger scale—Corn is King. The annual production of the State during the past ten years has averaged nearly 190 million bushels—often it has been more than 200 million—sometimes upward of 250 million. Several counties each make the five-million mark. And the striking feature of Missouri corn is that it ranks higher in quantity than in acreage: fifth in acreage, third in quantity produced, among the corn crops of all other states. A fine showing for the Missouri climate, soil and farming methods.

Missouri corn is unsurpassed in quality. The long growing season and fertile soil make ideal conditions for the production of sound, well-matured grain—just the kind for seed corn. And, perhaps, no other state is so often called upon to furnish seed corn to its neighbors.

Wheat is grown profitably in all Missouri counties—one of Missouri's greatest crops

Boone County White and Reid's Yellow Dent have been found by the Missouri Agricultural Experiment Station to be the most widely adapted varieties. St. Charles Yellow and St. Charles White are next in rank, the white variety being widely grown in the rich delta region of southeast Missouri. The use of sound matured seed of an adapted variety, thorough preparation of the seedbed, a light application of phosphatic fertilizer on the average soil, thorough cultivation—these are the main practices in corn growing urged by the Missouri College of Agriculture.

## Wheat

Missouri is also great in the production of wheat. During the past ten years she has ranked fourth or fifth in the winter crop, yielding nearly thirty-five million bushels annually. In yield per acre and in market quality of the grain, the Missouri wheat crop stands high among the crops of other states. In comparative freedom from diseases and insects Missouri wheat is among the first. No other important wheat state is less troubled by the dreaded rusts and smuts; and in no other are the Hessian fly and chinch bug less prevalent.

By long investigation the Missouri Agricultural Experiment Station has found Fulcaster, Poole and Fultz—all soft winter wheat—to be the leading types for this State. They will usually out-yield all other varieties, except in the northwest corner of the State, where frequently a variety of hard winter wheat, such as Turkey, will better withstand winter-killing. The use of an adapted variety, midsummer plowing in beginning the preparation of the seedbed, a moderate application of phosphatic fertilizer, and the treatment of the seed for smut, are the main practices for the production of the best wheat crops in Missouri.

## Oats

Among all the states Missouri ranks fourteenth in the production of oats. The crop is crowded out of a higher rank by the enormous acreage of corn, which utilizes most of the land available for spring crops and supports the high standing of the State in the production of hogs. But in spite of the restrictions on her oats crop, Missouri turns out the fine average annual yield of about thirty-seven million bushels.

The most important measures for making the best crops of oats in Missouri are the use of early or medium early varieties, the treatment of the seed for smut, and early seeding. Kherson, Sixty-Day and Early Champion, are the best early varieties, with Burt or Red Rustproof—medium early varieties—the next choice.

## Barley and Rye

Although Missouri can grow good crops of spring barley and rye, these are of minor importance in the production of grain. Considerable rye is sown for pasture and green manure and makes an excellent growth for these purposes; but barley is now practically limited to its use of early summer feed, for which purpose it must compete with a number of other crops.

Missouri, a leader in alfalfa, tame hay, blue grass, etc. Missouri, in 1917, produced 4,500,000 tons of hay

There is a good possibility, which the Experiment Station will investigate, that winter barley may prove successful in southeast Missouri. If the crop can withstand winter-killing it will undoubtedly yield very heavily in that section.

## Bluegrass

Missouri is unsurpassed in bluegrass. It has been said that she has more bluegrass than all the states north of her northern border or south of her southern border. Bluegrass is grown in every Missouri County with the possible exception of a few counties in the southern part of the State. Its annual grazing value has been estimated at from twenty to thirty million dollars, and this does not take into account the seed crop, whose value has become very important in several sections.

In palatability and endurance a bluegrass pasture is unequaled and its value to the Missouri live-stock farmer can hardly be overestimated. It furnishes good feed in early spring and throughout the summer, except when dry weather sometimes limits the growth during July and August. But even when the growth is limited in late summer, early fall rains will so revive it that fine pasturage is furnished for the fall and often for almost the entire winter except when snow covers the ground. All kinds of stock thrive well on bluegrass—the experienced cattle feeder has found his cheapest gains from feeding on bluegrass; the hog feeder also pastures with profit.

## Alfalfa

Alfalfa is at home in Missouri. Not only because of its natural adaptiveness to very many sections of the State, but also because the average Missouri farmer, in spite of the occasional failures of alfalfa he may have witnessed, has almost an affectionate regard for the crop. The striking increase of nearly sixty per cent in acreage during the last ten years indicates the esteem in which this excellent forage is held.

Alfalfa thrives in Missouri and contributes its share toward making the State one of the leaders in the production of hay. Nowhere does it succeed better than in the lowest areas along the Missouri and Mississippi rivers and in northwest Missouri, in southeast Missouri, and in a few counties of southwest Missouri. On these soils the crop grows vigorously with little or no assistance. Inoculation, applications of lime, stable manure, and phosphatic fertilizer, are in progressive order the treatments recommended for alfalfa by the College of Agriculture when the natural resources of the soil fail to make a good crop.

## Sweet Clover

This new and worthy rival of alfalfa is rapidly gaining an important place in the agriculture of Missouri. On fertile bottom land it has proved its worth in a rotation with wheat and corn, while on upland it is grown successfully, independent of a rotation, for hay and pasturage. Generally sweet clover is more useful on lands which do not produce the best crops of alfalfa, for although it requires less abundant

Two more profitable forage crops in Missouri—cowpeas and soy beans—dependable crops

resources of the soil than alfalfa, it is less popular as a forage—good, but not so good as alfalfa, all things considered. Hence, sweet clover is becoming widely utilized on the less fertile soils, when a long-lived legume is wanted, although it is by no means a poor-land crop.

The important measures for growing good crops of sweet clover, when the natural resources of the soil are not sufficient, are those just recommended for alfalfa.

## Soy Beans and Cowpeas

These excellent leguminous forages are nowhere more at home than in Missouri. Cowpeas, although in recent years much displaced by soybeans in central and north Missouri, hold their popularity in the southern part of the State. Especially is southeast Missouri they are a staple hay crop of great value, making one of the most reliable and profitable crops of that section. Whippoorwill and New Era are the most important varieties.

The development of the soybean crop in Missouri has been the most rapid of any crop in recent years. No other crop in so short a time has so substantially proved its worth. The soybean is easy to grow, easy to handle, easy to feed, and its yield of seed and highly nutritious hay is nowhere better than in Missouri. It is easy on the land and no crop is more dependable in drouth-prevalent sections. It is especially popular for planting in corn for a hogging-down mixture. Perhaps ninety per cent of the Missouri crop is grown in this way.

For growing good crops of soybeans, the Missouri College of Agriculture recommends the use of adapted varieties, inoculation, and clean cultivation. The Missouri Experiment Station has found the Morse, Medium Yellow and Mikado to be excellent varieties for the production of seed. Wilson, Virginia and Arlington are of outstanding value for hay. Ito San, a quick maturing variety, is especially useful for late planting.

## Cotton

Although not strictly within the cotton belt, Missouri makes a fine production of the great textile. In round figures her average annual crop covers 120,000 acres and turns out 65,000 bales—a production, perhaps, not equaled, acre for acre, by any other state. In the fertility of the delta soils the Missouri cotton farmer finds abundant compensation for the restricted growing season.

In quality Missouri cotton is unexcelled. No state grows a longer, stronger or finer staple of the upland type.

## Sorghums

Both grain sorghum and sweet sorghum, the latter known to most Missouri farmers as "cane," have an important place in the agriculture of the State. Grain sorghum is growing in popularity as a worthy substitute for corn on the thinner, dryer lands. The Black-

Tobacco, a profitable industry in the hands of experienced growers. Great opportunities in Missouri

hull Kaffir and its derivatives are perhaps the leading types, although Feterita and Milo are also useful.

Sweet sorghum is a most familiar crop in Missouri. The State yields a round annual average of one and a half million gallons of sorghum syrup, leading all others in the production of this luscious sweetening. Orange and its derivatives are perhaps the best varieties for syrup, although the Amber and Sumac types are also popular. All of these varieties are very useful for silage, for rough-cured forage, and for pasturage.

For producing abundant feed under conditions which would make scanty yields of most other crops, both grain sorghum and sweet sorghum are unsurpassed.

## Tobacco

No better crops of dark Burley tobacco can be grown anywhere than on the rich, loess soils of Missouri. Yet the production of tobacco is a fast disappearing industry in this State. The demand of the crop for specialized laborers not commonly found here, and in recent years the greater profit from other crops, have combined to make tobacco growing generally unpopular. However, in northwest Missouri a few counties still grow considerable tobacco and find it profitable. Their combined crops cover thirty thousand to thirty-five thousand acres. The yields average 900 pounds to the acre. Outside this territory few large crops are grown, although many Missouri farmers grow small patches for their own use.

## Broom Corn, Rice, Flax

These minor crops of Missouri do exceedingly well where special conditions make them desirable. Thus upland rice yields an average of forty-eight bushels to the acre in southeast Missouri, in central and southwest Missouri broomcorn averages over four hundred pounds, and in the latter section flax yields an average of eight bushels. Even these fine average yields will doubtless be much increased by more attention to productive methods as the crops become more popular.

## Potatoes

The potato is a staple truck crop in Missouri, and should also be included in every home garden of any size. It is grown commercially in parts of the State, particularly along the Missouri River in the west central part of the State. Production of the early varieties for sale during June and July is proving especially profitable.

The Early Ohio and Cobbler varieties have been found most satisfactory for this purpose. The commercial potato crop is worth approximately $12,000,000, thus taking first place as a vegetable crop. Yields and prices are good for this early crop, while the demand is limited only by the supply, for old potatoes usually disappear from the market about the time the Missouri crop comes in. It has been found that early planting (before April 1) results in a better stand and a much better yield of potatoes in this State. The use of good seed of the right varieties

Marketing two of Missouri's leading crops—tomatoes and peaches. Missouri grows more kinds of fruits, vegetables and cereals than any other state

and an application of acid phosphate or a complete fertilizer in the row at planting time is advisable.

Hundreds of acres of potatoes are grown under a straw mulch, which adds to the fertility of the soil and improves the quality of the crop, besides saving cultivation.

The growing of a late or fall crop of potatoes is practical in this State, planting about July 1st. Old potatoes held in cold storage are used for seed for this crop. The fall crop is dug after the tops are killed by frost. The potatoes are of very fine quality for table purposes, and keep unusually well in storage. Also it has been found that seed saved from the fall crop is very productive when planted the following spring for the early crop.

Sweet potatoes may be grown profitably for home use and for the market in all parts of Missouri which is beginning to assume a reputation as a sweet potato growing State. The sandy and gravelly loam soils are best adapted for the commercial crop. The demand for home grown sweets is practically unlimited. By the use of modern heated storage houses or kilns, the season for sweet potatoes can be extended from the harvest season in the fall until spring. Lengthening the season from a few weeks to six months expands the demand enormously. Several modern storage houses built according to government specifications are already in operation. For home use sweet potatoes can easily be kept in good condition through the winter by storing in boxes in a warm, dry place. Millions of sweet potato plants are grown in Missouri for shipment to other states. Our markets prefer a sweet moist fleshed variety, such as the "Nancy Hall," which has become a universal favorite. This variety has been found very productive. On soils not especially suitable for sweet potatoes and for the early crop, the "Red Bermuda" is a satisfactory variety because of its vigorous growth.

## Profitable Markets Economical Transportation

Alexander Jackson

Missouri, raising as she does practically all the necessities of life, and many of the luxuries, is a real self-supporting empire and fortunate in having a big surplus of the essentials and necessities of life available both for domestic and foreign export.

The balance of trade, which we read about and hear so much of these days, is the controlling factor in the prosperity and financial standing of a state or nation. To be on the right side of the ledger a state or nation must be able to dispose of commodities either in the way of raw materials and manufactured products of greater value than she imports. Missouri is on the right side.

Missouri is one of our states doubly favored so far as economical transportation is concerned, having both rail and water facilities.

Her many railroads with over 8,200 miles of track serving the State advantageously, to say nothing of

Missouri, a leader in the production of high-grade beef cattle—market-toppers and prize-winners

the big volume of local commodities such as apples, vegetables, timber, railroad ties, etc., handled cheaply on many of her inland waterways, all leading to rail facilities, and in many instances carrying traffic direct to the Missouri River which traverses her center from Kansas City to St. Louis, or to the mighty Mississippi which touches all her eastern counties, and offering economical transportation for both domestic and export business, enabling many of her products to reach all parts of the world through the port of New Orleans. All the Atlantic and Gulf of Mexico ports at her disposal, while the Orient with its teeming millions, who are just beginning to appreciate American food products, is in easy reach through our many Pacific ports.

For domestic markets, on the banks of the Mississippi, we find over thirty great industrial and distributing cities with scores of other important towns and landings, all contributing a big tonnage of in-and-out traffic, and adding to the wealth and prosperity of the Missouri farmers.

The wise man looking for a suitable location for the raising of the necessities of life always keeps in mind that prime consideration—markets. Missouri possibly has three of the best markets and distributing centers in the United States, viz., Kansas City, St. Louis and St. Joseph, with their factories, wholesale houses and packing plants. She thus enjoys the benefit of keen competition in her home markets, to say nothing of the outside markets with which she is in close connection, both by rail and water.

It is doubtful if there is any state in the Union so advantageously located from a marketing standpoint as Missouri, and the expected development of her more important waterways is going to be a big factor especially in the handling of many commodities on which cheap transportation rather than quick service is desired.

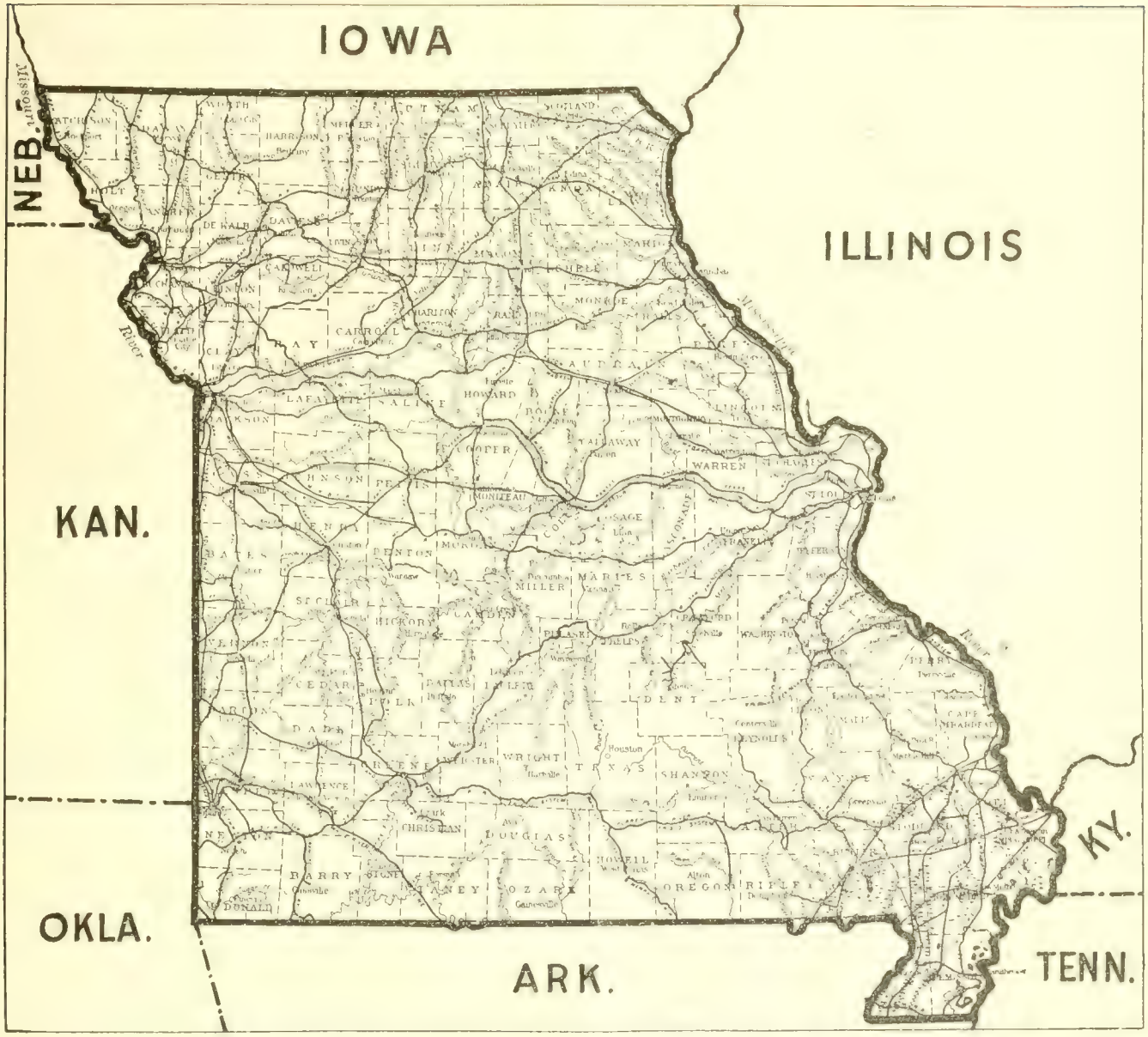
Progressive men or women looking for a new home will bear in mind the important fact that Missouri is not a one-crop State; that it produces a great diversity of crops, that climatic conditions are on the whole not excelled, and *that opportunities in the United States are not excelled in any other country in the world.*

## Beef Cattle

E. A. Trowbridge, Professor of Animal Husbandry,
University of Missouri

Missouri ranks fifth among the states in the number of beef cattle. The St. Louis market "top" is more frequently made by Missouri-fed cattle than by those of any other state. Many of the highest-priced pure-bred beef cattle sold at public auction have been reared, fed and sold in Missouri. The State's accomplishments are evidence that beef cattle production is profitable, pleasant and practical, or such production would have ceased long ago.

Missouri bluegrass is unexcelled. Other forages and roughnesses grow in abundance. Missouri stands high in the production of corn. Cotton seed meal,




**Missouri—The hub of a great galaxy of food-producing states**

wheat bran and other supplementary feeds are available without long freight hauls and high charges.

Much acreage of Missouri land is in good grass and supplied with good water.

The price of land is not as high as in many sections and yet, to the beef cattle producer, it offers as great opportunities as can be found anywhere.

Market facilities are unexcelled because the State has a large population with large consuming and distributing cities to the east, north, west and south.

Western grown feeder cattle find their greatest market at Kansas City, Mo. These cattle are thus available to Missouri feeders.

Capital for the conduct of cattle enterprises may be secured under favorable conditions because Missouri is not subject to crop failures, and diseases which endanger beef cattle are either not prevalent or are well under control.

No state excels Missouri in the production of pure-bred beef cattle. This business has long been profitable

Long Gano and Great Orion, 1918 World's Champion Duroc Jersey sow and boar, from Jackson County. Missouri is the third State in hog production

for large numbers of Missouri farmers. Record prices on individuals and herds at both public and private sales are made frequently in the State.

With its close proximity to the great breeding grounds of the West, Missouri is a particularly good market for pure-bred cattle.

But, without the intelligent population, experienced in the cattle business, the State might fall short. Experience, education and environment have made successful cattlemen in Missouri. The man who takes up the production of cattle in the State becomes a stockholder in one of the most essential and extensive lines of production followed by man.

## Hogs

L. A. Weaver, Associate Professor of Animal Husbandry, University of Missouri

Missouri has some outstanding advantages as a hog-producing State. Some of the more important of these might be enumerated as follows:

Feeds available: A study of the pork industry shows that it follows closely the production of corn. As a corn-producing State, Missouri ranks fifth in total acreage, but is third in production. Furthermore, it has been demonstrated that pork may be produced most cheaply when good pasture crops are provided in addition to corn. In this respect Missouri excels, having a long grazing season and producing forages especially adaptable for pork production, particularly leguminous crops with which to balance the grain ration. Protein concentrates, such as tankage and oil meal, are also easily obtained since they are by-products of manufacturing industries located in different sections of the State.

Markets: Missouri has three excellent swine markets, viz.: St. Louis, Kansas City and St. Joseph. There is no part of the State which is not located near a good market.

Climate: Of all the different kinds of live stock, hogs are perhaps the least able to withstand extreme temperatures. Since Missouri has neither the extreme cold of the northern states nor the extreme heat of the states located farther south, the climate is excellent for the production of pork.

Animals available: A large number of purebred herds makes breeding stock readily available if breeding animals are needed, while certain sections are well adapted to producing feeding hogs for those who wish to purchase feeders.

That Missouri has these and other advantages is shown by the fact that of all the states in the Union, she is excelled by Iowa and Illinois in the number of hogs produced.

## Horses, Mules and Jacks

E. A. Trowbridge, Professor of Animal Husbandry, University of Missouri, Columbia

Missouri climate, soil, crops, markets and men, have made this the greatest mule-producing State in the Union. The reputation of the "Missouri mule"

A bunch of Missouri work horses and The World's Champion Five-Gated Saddle Stallion, "My Major Dare." Missouri's horses are worth over $100,000,000

has become international. Not only have Missouri-bred mares mothered the world's best mules, but Missouri horses have won many of the highly coveted prizes in world competitions. The State has supplied its own demands for work stock and has sent more than its quota to the world markets. The State ranks sixth among the states in number of horses.

The horse and mule business has made much money for Missouri farmers. With the State's well-established reputation, it can be expected to do more easily in the future what it has done in the past.

Missouri farmers are able to reap a double income on their horses and mules because these animals perform the labor necessary to crop production and large numbers of mule and horse colts are produced each year. Farm work is such that much of it can be done by brood mares and young stock, leaving a yearly revenue of large proportions from the sale of mature horses and mules.

Missouri bluegrass grown on the State's limestone soil, is unexcelled for the development of bone, muscle and quality in horses and mules. No state excels Missouri in the quantity and quality of its bluegrass pastures. Clover, alfalfa and other pasture and roughness crops are produced in abundance. Corn, oats, barley and other grains are produced on the farms where they can be utilized in the production of horses and mules.

Short, mild winters and long growing seasons, with neither the extreme of heat nor the lack of it, necessitate a minimum of shelter and labor in the production of horses and mules.

The large part of the year spent in the open by colts make horses and mules, so grown, particularly free from disease. Good water can be had on practically every farm.

East St. Louis, just at the eastern edge of Missouri, is one of the world's greatest horse and mule markets. Buyers from this market are on hand throughout the State to take the horses and mules that are ready for market. Kansas City and St. Joseph, on the west, furnish excellent markets for surplus stock. Buyers from the South and East travel over Missouri each year in search of horses and mules to ship to these respective sections. Aside from these demands, Missouri cities use large numbers of mules and horses to carry on their extensive industrial enterprises.

The world realizes that Missouri has horses and mules of the right kind to sell and this big advantage of becoming a part of an enterprise already in a thrifty, well-established condition, offers itself to the operators of Missouri farms.

## Sheep

D. A. Spencer, Missouri Sheep Specialist

In the early history of Missouri, mutton and wool production was one of the important industries of the State and through a long period of years, Missourians have injoyed profits from farm sheep raising. With the advance in prices of mutton and wool during the last four years the consuming public is dis-

A profitable industry in Missouri. Every Missouri farm should have at least twenty good sheep

criminating more than ever, in favor of quality and sheepmen are finding Missouri soil and climate eminently adapted to the production of high quality mutton and wool.

The federal and state crop-reporting service has announced that during 1918, Missouri's sheep population increased 73,000, or nearly five per cent, making a total of 1,539,000 sheep in Missouri on January 1, 1919. This increase in actual numbers, while significant, seems rather ordinary when the secretaries of the American sheep registry associations tell us that the number of Missouri breeders who are registering pure-bred sheep has increased 38.3 per cent from April, 1918, to April, 1919. Shepherds of Missouri hills have learned that it pays to use pure-bred sires and the breeders of pure-breds have a splendid market for their sheep.

Since the winters are rather mild and pasture exceptionally early and abundant, early lamb production is especially profitable. Lambs in this State are piling up economical gains during late winter and early spring, while lambs in the northern states must live from mow and bin.

In many corn-producing counties the economical practice of feeding lambs in the cornfield is rapidly becoming popular as a big money-maker. The unique location of Missouri, having on one side the big feeder sheep markets of Kansas City and St. Joseph and on the other side the fat sheep markets of St. Louis and Chicago makes it possible for many western sheep to be fattened in Missouri and to be moved on toward the east where mutton and wool are in greatest demand and where prices are most favorable to the producer.

## Sheep and Wool

W. D. McKee, Farmer and Sheep Breeder,
R. F. D. 3, Polo, Missouri

More sheep in Missouri means more woolen fabrics sold across the counter, and more lamb and mutton chops in the market basket.

The number of sheep in Missouri, compared with the number that should be found on the two hundred and seventy-seven thousand farms, is distressingly small—1,539,000. Permanent and successful agriculture cannot be maintained without live stock—and sheep are essential to the program of farm animals.

Agriculture based upon exclusive grain farming cannot endure or abide, and must be of a necessity short lived—and leads to a system of soil robbing, when the crops are sold off the farm through the elevator, and nothing returned, and results in an impoverished soil and consequently low yields.

Of all the farm animals, there are none that keep up the fertility of the land, convert pasture grasses and field crops into a more wholesome and greatly needed product, wool and mutton, and at the same time return to the owner a higher per cent on his investment than sheep.

The sheep, above all other farm animals (excepting the goat), is a willing and cheerful consumer of weeds. In combating these plant-food consumers and

Useful and profitable pioneers in the first army against underbrush, weeds, and waste places.
Every Hill and Cut-Over Farm should have a flock

eyesores on the farm, one of the most effective weapons of warfare at the farmer's command is a flock of sheep.

While the entire State of Missouri is peculiarly adapted to sheep husbandry, there is no part that holds out as great a promise and as bright an outlook for the economic production of wool and mutton as the Ozarks. Abundance of water, plenty of shade, splendid rolling pastures, make the Ozarks the natural home of the sheep, and millions ought to be grazing on these hills instead of the scanty number now to be seen.

Let the farmers of Missouri awaken to the fact that in casting about for some farm animal that will enable them to make the farms rich, clean, and tidy, the bank account to swell and grow fat, and to confer a perpetual and enduring blessing on all mankind—let me exhort them, as a flockmaster of thirty years, experience—pin full faith to the animal with the golden fleece and hoof—the sheep.

## Angora Goats

By C. E. DeGroff, Reeds Spring, Missouri, Secretary
American Angora Goat Breeders' Association

The raising of Angora goats in the Ozarks, particularly in the mountainous parts of Missouri, is a growing industry. Flocks of from one hundred up to three thousand head have been brought in from the southwestern and other states during the past three years.

While some of the registered flocks are being bred for their fleeces, which are now selling at seventy-five cents per pound, the majority of the flocks of grades are being used for clearing the underbrush from the land that has had the timber removed.

Goats are different from sheep in that they feed with their heads up and their natural feed is sprouts, vines, thorns, etc. Their constant nipping of the buds in winter and the new growth in summer soon kills the brush as high as they can reach standing on their hind feet. Bluegrass and blue stem grass (the natural grass of the Ozarks) soon come in for other stock to feed on.

Except for dry sheds for them to go under from storms, very little care is given Angora goats except at the kidding season. An increase of one hundred per cent is the general rule, while many with grade flocks report 150 per cent.

When they have plenty of sprouts and wild grass to feed on in the winter, Angoras require little feed except during storms. They relish any kind of hay, cornstalks or rough forage, providing it is well cured and not musty. The general winter feed for Angoras in the Ozarks is well-cured sorghum hay.

## Dairying

A. C. Ragsdale, Professor of Dairy Husbandry,
University of Missouri

Nature has given Missouri her farm lands, shaped her hills and guided her streams just as the dairy

Beyond question, no other part of the world offers better possibilities for dairy farming than Missouri

cow wanted them, pure water, perfect drainage and plentiful pasturage combined with pleasant summers and short winters, make Missouri ideal for dairying. Conditions are especially desirable because of the State's location in the center of our great country, with a great milk-consuming population at her doors and with the best facilities for marketing her products.

Our farmers have learned that there is money in dairying for the man who thinks; that good barns and equipment, and intelligent management are a big asset, but that without good cows and careful feeding all efforts are vain. Through private records, cow testing associations and official testing, the poor producers are being eliminated. By learning to grow their own feed so far as possible our farmers are cutting the amount to be purchased to a minimum. Good economical rations in Missouri are based upon corn silage and some legume hay, such as clover, alfalfa, soybean or cowpea.

Through organizing a bull club one county secured the service of nine pure-bred bulls with dams for the first three generations averaging more than six-hundred pounds of butter per year. The cost to each farmer for service of these bulls averages $5.50 per year and he is breeding to a $260 bull. Previously the average cost to each farmer was $19.57 a year and he was breeding to a $75 bull. With this start and the help of the cow testing associations the farmers of this county confidently expect to drive every scrub bull out of the county within a very few years. There are other communities of this kind in Missouri and results show that to live in them "pays."

Dairying is growing steadily in Missouri. With 919,000 dairy cows producing products worth approximately one hundred million dollars annually, she has a good start. The future agriculture in Missouri will unquestionably be composed very largely of intelligent dairy farming and those who prepare early with one of the recognized dairy breeds will be the ones who will do the most good and reap the first harvest.

## Dairying

E. G. Bennett, Dairy Commissioner of the Missouri State Board of Agriculture

Missouri has long since been recognized as a State that has not had her resources fully exploited. Good pastures, numerous springs and streams, ample shade, mild climate, and soil that grows all kinds of forage crops gave Missouri a just claim to having natural resources equal to any state in the Union for stock raising and dairying.

That portion of the State known as the Ozark comprises about twelve million acres, and while much of this section produces well in wheat and corn, it is especially adapted to the stock industry. In the rougher sections the wild timber grass provides good grazing throughout the year and when the timber is thinned sufficiently to allow ample air and sunshine, bluegrass volunteers, and orchard grass, red top and other grasses do well. Thus the rougher land is

Missouri, the ideal country for dairy farming—climate, soils, feeding and marketing conditions unexcelled

profitably utilized, while the valleys and more level land provides grain for concentrates and forage for winter feeding.

The long-horned scrub cattle are gone forever—and in their place come the pure-bred Herefords, Shorthorns, Angus and Galloways.

The mongrel dairy cow, a burden to her owner, producing but little more than is required to raise her calf, will, within a short time, be known only in history. The pure-bred Holsteins, Ayrshires, Jerseys and Guernseys are here—and their numbers are increasing rapidly.

Pure-bred stock associations have been organized in most counties of the State, and the interest shown in these organizations by their members emphasizes their sincerity.

No branch of agricultural development has shown more progress than dairying. In addition to most favorable natural conditions for the stock, St. Louis, Kansas City and St. Joseph and close proximity and good shipping facilities to eastern and southern centers, provide good markets for dairy products. Many commercial clubs and bankers throughout the State have, through their desires to increase revenue in their respective communities, turned their attention to the possibilities of the dairy cow. The "Missouri Calf Club Plan," endorsed by the Missouri State Board of Agriculture, has fully proven its worth in promoting this industry. Through the State Dairy Department of this Board, co-operating with commercial clubs and bankers, more than 4,000 high-grade and pure-bred dairy heifers from the best dairy sections of America (and some from European countries) have been distributed to sixty-five calf clubs in various sections of the State.

With such stock for foundation blood, and millions of Ozark country land available at low prices, does not Missouri offer real opportunities for the dairy farmer?

## A Big Foreign Demand at Present for High-Grade Beef and Dairy Cattle

Grade Holsteins in large numbers have already been purchased for shipment to France, while orders from the French High Commission will cause a drain on the supply of grade Holsteins in most of the important dairy sections of this country, six hundred head have already been shipped by Ray C. Judd of St. Charles, Ill. With J. M. Fletcher and E. J. Fellows, he is taking care of an order for 1,000 head per month according to authentic reports. These men are combing the states of Illinois, Iowa, Michigan, Wisconsin, Minnesota and Indiana for Holstein grades. At St. Louis, Mo., the Milton-Marshall Live Stock Commission Company have an order for 500 head per month and their selections are being made from Missouri, Kansas, Nebraska and western Illinois. In New York State a definite order for 10,000 head has been received by George N. Smith of Watertown, in company with Messrs. Holland of Syracuse, Shotwell of Skaneateles

The stock and dairy farmer's reserve bank. Missouri farmers understand silos to mean, "When a fellow needs a friend"

and Libby of New York. Mr. Smith reports to the Holstein World that shipment is being delayed by the shipyard strikes at Newport News, which is the point of debarkation, so that he is now carrying indefinitely about six hundred head of Holstein grades on his farm at Watertown, N. Y., until the shipping situation clears up.

As high as a thousand head a week have been shipped from New York alone. Large orders are also reported to have been placed in New England.

From all indications there will be a big demand for a long time on the United States from practically all parts of the world for good dairy and beef cattle breeding stock.

This will naturally tend to higher prices, consequently our Missouri farmers contemplating eliminating their scrub stock and building up their beef and dairy herds should not delay in securing their high-grade or registered breeding stock. Missouri farmers figuring on buying improved stock of any kind will be well advised in getting in touch with their Agricultural College, Columbia, Mo., or the State Board of Agriculture, Jefferson City, Mo. In the purchasing of live stock of any kind, especially from outside states, it is always advisable to have the benefit of expert advice and examination.

A great many Missouri and other farmers have had bitter and expensive experiences through dealing with unprincipled dealers.

Now is the time to buy!

## Silos and Silage

A. C. Ragsdale, Professor of Dairy Husbandry,
University of Missouri

That the silo is as necessary a part of the equipment of a stock farm as is a barn, is shown in a measure by the rapidity with which it has come into use, and the almost universal satisfaction it gives the owner.

The greatest of the many advantages of the silo is the possibility it affords of utilizing all of the corn crop. Some years ago when land was cheap and plenty of coarse food was at hand, it was not a serious loss if a portion of the corn crop was wasted. At the present time, with both farm lands and feed high in price, conditions are quite different. When the ears of corn are husked in the ordinary way and the fodder left in the field, from sixty to seventy per cent of the food value of the corn crop is taken with the ears, while thirty to forty per cent remains with the fodder.

Putting an acre of corn, yielding fifty bushels in the silo makes available 900 pounds of digestible food, above what would be had in the corn if husked. This is fully equal to saving a ton of timothy hay for each acre of corn.

But saving feed is only one advantage of the silo. Every farmer knows how quickly the condition of all of his animals changes when changed from the dry feed of the winter to pasture in the spring. The young begin to grow better, the cows to give more

Cantaloupes—a profitable crop in Missouri, netting from $100 to $150 a carload

milk, and all do the best of any time during the year. Feeding silage in connection with other feed stuffs makes it possible to continue practically these same summer pasture conditions throughout the year.

## Apple and Other Tree Fruits

V. R. Gardner, Department of Horticulture, University of Missouri

While Missouri does not lead all other states in the production of any single fruit crop it has long been an important factor in the commercial apple and peach industries. Here, as elsewhere, the indiscriminate planting of orchards is not to be recommended. However, there are several general sections pre-eminently adapted to fruit growing. Among these should be mentioned the belt of hill land of varying width bordering the Mississippi River and the Missouri River as it crosses the State and forms a part of its western boundary. The so-called "loess" soil of this belt is one of the best fruit soils in the world. It is deep, moderately rich, free from hardpan, affords almost perfect drainage and is generally characterized by a topography ideal from the viewpoint of air drainage and freedom from frost. Likewise in the Ozarks there are many favored places where soil, slope and elevation, combine to make excellent locations for large fruit enterprises. As a matter of fact there is not a county in the State but that possesses some locations where at least a small commercial fruit industry can be developed to advantage. The local market for high-grade fruit is very good and exceptional opportunities are offered to the grower who will cater to and develop them. The portions of the State best adapted to large commercial fruit enterprises for the most part are so located with reference to large markets and transportation facilities that present production can be greatly increased with profit to the grower and with no danger of oversupplying the demand.

The apple is our most important fruit and should constitute the major part of future plantings. Peaches should be set only in favored areas where local topography insures comparative freedom from late spring frosts. Such areas are much more apt to be found in the southern rather than the northern half of the State. Both cherries and plums are raised successfully throughout the State and are very profitable crops. Growers could well afford to increase their acreage of these crops.

## Small Fruits

The small fruits ripen at a time of the year when other fruits are practically off the market, or at least are difficult and expensive to obtain. The result is that there is always a keen demand for them—a demand that during recent years has been greater than the supply. The local markets in Missouri are such as will absorb large quantities with profit to the grower and the State is so situated with reference to large markets and transportation facilities that much greater productions may be encouraged.

Of all the small fruits the strawberry is the most important and it is adapted to the widest range of

Watermelons, another profitable crop in Missouri—soil, climatic and marketing conditions just right

conditions in this State. As a matter of fact it can be grown profitably in practically every county in Missouri. Raspberries, blackberries and dewberries, thrive in moist, well-watered, but at the same time well-drained soils and are comparatively easy to grow. There is never enough raised to begin to meet the demand. In Missouri raspberry growing should be limited to the black-cap and purple-cane varieties. Currants and gooseberries succeed in the northern half of the State, but do not thrive so well farther south.

## Vegetable Gardening

Growing vegetables for market as well as home consumption is an important business in the State of Missouri. Tens of thousands of home gardens in the towns and on the farms are contributing to lower the cost of living and to supply the people with a variety of the most healthful and cheapest of foods. The commercial vegetable crop is worth approximately twenty-five million dollars annually. Yet in many cases the production of vegetables is insufficient to meet the local demands. With many large consuming centers in this and neighboring states, the opportunities for entering the business of commercial vegetable growing are splendid. The climate of the State favors the successful production of practically every vegetable that is grown in either northern or southern regions. The long growing season enables the truck grower to produce two to four crops on the same land each season. In fact, growing conditions and the ready demand for high-class vegetables invites extensive production of vegetable crops by up-to-date methods. No other line of agricultural work offers such opportunity for intensive work on a few acres with a comparatively small investment and quick returns. The consumption of vegetables should increase, and is increasing, among all classes of people, whether vegetables are grown at home or bought on the market. Finally, Missouri has the land which is suitable for growing nearly every kind of vegetable to perfection, on a large scale.

## Tomatoes

J. T. Rosa, Jr., Department of Horticulture, University of Missouri

Missouri ranks high as a tomato-growing State. About 10,000 acres are grown especially for canning and many more for home use and local markets. As a market crop, early tomatoes are highly profitable, success resulting largely from early setting of large, stocky hotbed grown plants.

As a cannery crop, Missouri tomatoes take first place in point of quality, color, flavor and solidity of the packed product. The gravelly and rocky soils of the Ozark regions produce splendid crops of tomatoes that are of especially fine quality for canning. The sandy and loess soils along the Missouri River also are desirable for extensive plantings. There are a large number of modern and well-equipped canning factories in the State, which are capable of handling many more tomatoes than are now being grown.

Missouri leads all states in poultry and egg production—the poultry-raiser's paradise. Poultry and egg value, in 1918, was over $76,000,000

As the cost of production is much lower here than in eastern states, Missouri tomato growers and canners have a considerable advantage on the market.

For full information on growing tomatoes, write for Missouri Experiment Station Circular 87.

## Onions

Onions thrive in light rich loamy soils and on the rich black bottom lands. Growing onions has proved to be profitable in Missouri. Practically everywhere this crop can be grown from sets, and often proves extremely profitable, for yields are good and prices are high for this early maturing crop grown from sets. The yield from a single acre of good early onions may be worth more than many acres of field crops. The Red Globe varieties are most popular. Sets may be grown at home or purchased cheaply in nearby sections which make a specialty of producing them. Early planting (late February or March) has proved by far the most profitable for both yields and prices. Onion land should be heavily manured and in the best of cultural condition. It is well to prepare land for onions by manuring heavily one or two years beforehand and cropping with a hand or clean cultivated crop so as to build up the soil and rid it as far as possible of grass and weed seed.

## Watermelons

Missouri ranks third as a watermelon producing state. Large areas of the light sandy soil which is ideal for melon production exist in the southeast section of the State, as well as elsewhere. The local demand for melons is especially good. Recently, two county-wide shipping associations have been organized to handle the marketing of the melon crop. Half a carload per acre is considered a fair crop. Also the acreage of muskmelons is increasing, as more and more growers find that they can produce this crop successfully and profitably, not only on the sandy soils, but on the heavier soils when these are properly manured and fertilized. As the market demand is for large watermelons, the principal variety grown is the "Tom Watson." The use of both stable manure in the hill and a small quantity of commercial fertilizer worked in around the hill, contribute much for the production of a large number of fine melons.

## Missouri as a Poultry State

H. L. Kempster, Department of Poultry Husbandry, Columbia, Mo.

Missouri is recognized as one of the leading poultry and egg-producing states. Ten years ago Missouri clinched her right to the title "Poultry Queen of the Union," by producing, according to the census, more eggs than any other state. More eggs are being produced than ever before. Even under the strenuous conditions due to the war, Missouri farmers continued to increase the size of their poultry flocks.

Missouri farmers realize the importance of high grade dairy cattle. Dairying conditions in Missouri are ideal

The present poultry conditions have been brought about because those who undertook the raising of poultry found it profitable. Poultry thrives best in well-drained sections, where there is a long-growing season, an abundance of clean water, insects which furnish necessary food nutrients, and a good supply of gravel and grit. It is in the grain-producing sections that poultry offers the greatest opportunities. Missouri is far enough south to escape the long, bleak winters of the North, yet far enough north to miss the protracted hot summers of the south. Hot winds are seldom experienced. Under these conditions poultry are comparatively easy to raise. They produce liberally and the person who starts raising poultry acquires the habit of marketing poultry products regularly. Last year twenty-six farms, which were keeping records for the University of Missouri, showed an income from poultry and eggs above feed cost of $250 per farm. One retired farmer, with 430 hens, realized a labor income of over $100 a month. From November 1, 1918, to May 31, 1919, over one hundred farms, which are keeping records, show an income above feed cost of $156.84, the average number of hens per farm being 140. Poultry is an important adjunct to general farming. It is good farming practice to market grains and roughage as a live-stock product which is in edible form and poultry is a "crop which never fails."

Circular No. 70, dated August, 1919, "How to Cull Farm Hens," is now ready for distribution. Every poultry raiser should send for free copy and read it carefully.

## Possibilities of the Ozarks

T. W. Noland, Director, Missouri State Poultry Exp. Station, Mountain Grove, Mo.

Missouri is a wonderful State, having within its borders many diversified interests, among which poultry ranks near the top of the list. The Missouri State Board of Agriculture reports a production in 1918 of $34,000,000 worth of eggs, and $42,000,000 of poultry.

Missouri holds first rank as an egg producing State, the greater percentage of which comes from the general farm as a sideline product. There is a splendid opportunity for the establishment of commercial poultry plants, and room for decided improvement of poultry conditions in rural Missouri.

There is not a section of the State wherein the types of agriculture do not make poultry profitable and self-supporting. This is particularly true of the greater part of southern Missouri known as the Ozark country. In the above section of the State, land has not reached the price that is prohibitive to poultry culture. Reasonable prices of land, unlimited range, numerous springs and railroad facilities for good markets are factors which are doing much to make the Ozarks a profitable poultry center.

There is no occasion for the poultryman of Missouri to import poultry feeds as it produces all the needed small grains. Milk is produced on most farms to the extent that the purchase of animal protein is seldom necessary. Green food in the form of

A typical Missouri country road—$18,000,000 available for good road construction during 1919-1920

grasses, clover, rye and alfalfa is available or easily supplied throughout the entire year.

The Ozarks offer a splendid opportunity for the fellow who understands poultry culture in a logical way. The summers are warm but shade is abundant, and the winters are not severe. With good care during the short winter season poultry will pay a handsome dividend. Bear in mind that, as a rule, late hatched chicks are not profitable anywhere.

The Ozark section is not only adapted to poultry raising; but dairying and fruit growing are profitable if properly handled. In short the farmer of the Ozarks should combine the three classes of industry.

## Bees and Honey

K. C. Sullivan, Department of Entomology, University of Missouri

Missouri being a leading horticultural State, is therefore a natural home of the honey bee. Only one other state, owing to its size, can claim a larger number of colonies.

The Italians so far have proved to be the favorite in Missouri with their high-grade hybrids a close second. These bees are adapted to Missouri conditions because they are strong on the wing, hardy and industrious, and are easy to handle.

Bees should be on every Missouri farm as all sections of the State are well adapted to agriculture; the flora being such that the bee is kept busy from the time maple and apple blossoms open in the early spring until the Spanish needle and smart weed are nipped in the late fall. Ordinarily more nectar is obtained from bee and white clovers than from any other source. These wonderful legumes claim nativity in all parts of the State. They are in bloom during a large part of the summer and the clear white honey, which is produced from the nectar of these plants cannot be surpassed in flavor or quality.

There is still abundant room and opportunity for live and progressive beekeepers, as it is very conservatively estimated that only about one-twentieth of the total nectar produced by Missouri plants is converted into honey.

## Good Roads

C. O. Raine, Member Missouri State Highway Commission and Master Missouri State Grange.

The McCullough-Morgan amendments to the Hawes Road Law authorizes the State Highway Department to survey and construct six thousand miles of road within the next three years. This mileage is to be divided among the counties on the basis of two roads to each county—one north and south, and one east and west, as near as practical, of a total length of not more than fifty miles.

On these roads, $1,200 per mile of state and federal aid will be used without cost to the counties. However, the $1,200 per mile will not be spent on any state road unless it is ample to build a road substantial in character, that will meet the traffic requirements

Missouri-bred beef cattle have a world-wide reputation. A big outside continuous demand for Missouri breeding stock

and the population served. The cost of building such a road above $1,200 a mile is borne equally by the government and the county in which it is located.

No state road will be built with state and federal aid, unless the project is approved by the State Highway Department and the Federal Bureau of Public Roads. There is available for use on state roads in Missouri, within the next three years, over $9,000,000 of federal money. The Fiftieth General Assembly appropriated about $4,000,000 of state money to meet the federal money within the next two years (1919 and 1920), which, with money coming in from other sources, will make a total sum in the aggregate of about $18,000,000 for road construction in this State.

## Industries

By William H. Lewis, State Labor Commissioner of Missouri

In 1917 the value of the annual output of manufactured products in the State of Missouri passed the billion dollar mark.

Bureau of Labor Statistics show that these products for 1918 will amount to $1,250,000,000.

The most distinguishing feature about Missouri, as an industrial State, is the wide and increasing range of products which are being manufactured.

Missouri takes especially high rank in the shoe industry and packing house products. Missouri is first in lead and zinc mining.

Missouri stands first in walnut logs and walnut lumber.

In the manufacture of plug tobacco Missouri holds first place. The largest saddle-tree factory in the world is located in Missouri, as is also the largest stirrup factory.

St. Louis is the largest wholesale fur market in the world. The corn cob output for the current year of 1919 will reach a million dollars.

## Natural Resources

H. A. Buehler, State Geologist, Rolla, Mo.

Missouri stands ninth among the states in the value of its mineral output; has a greater variety of commercial minerals than any state in the Mississippi Valley; stands first in the production of lead, zinc; second in barytes; is one of the two chief centers in the manufacture of fire brick; is an important manufacturer of lime and Portland cement; has mines producing the semi-rare metals cobalt, nickel and tungsten; is an important producer or pyrites, used in the manufacture of sulphuric acid; ships marble throughout the United States for interior decorative purposes, and has large deposits of coal and iron as yet undeveloped.

These various mineral resources occur in different geological formations and under very different geological conditions. A knowledge of these features is of the greatest help in prospecting and development work.

The Missouri Bureau of Geology and Mines, or Geological Survey, is maintained by the State for the purpose of assisting in the development of these re-

Our Missouri farmers should remember that the best breeding stock is always a good investment a good start half the game

sources. The detailed reports of the department describe the nature and extent of the various commercial resources and are distributed to investors and citizens without cost other than transportation. Samples of Missouri ores and rocks sent the bureau are examined and their probable value determined.

The department is at your service.

Total annual mineral production:

| | |
|---|---|
| *1898 | $13,323,245 |
| 1913 | 47,760,584 |
| 1914 | 43,585,667 |
| 1915 | 59,821,032 |
| 1916 | 78,558,422 |

*For comparison and showing growth of mining and mineral industry.

The above figures include zinc, lead and iron ores, coal, clay, cement, building stone, sand and gravel, lime, clay, barytes, copper, tripoli, silver; miscellaneous, including tungsten, cobalt, nickel, etc.

## Water Power

The Ozark country abounds in water power, only the smallest fraction of which is being utilized. Good dam sites occur at numerous points along all of the larger streams such as the Osage, Gasconade, Meramec, Current and White rivers, and even along the smaller streams important sites occur. The Ozark streams are rapid and very commonly rock-walled. They are to a large extent spring fed, insuring a fairly good stage of water throughout the year. The great dam and plant of the Ozark Power and Water Company, on White River, near Forsythe, very well illustrates the possibility of developing the unused water power of the Ozark streams.

## Opportunities for Farming in Missouri

O. R. Johnson, Department of Farm Management

There are thousands of acres of land in Missouri that are not being farmed now because the demand for farm land is not great enough to justify the expense of bringing this land under cultivation. These untried farm lands are primarily for the man with considerable capital who can afford to wait for his returns. They usually require development—drainage and clearing that takes time and money. An inexhaustible wealth of fertility, that can be used once the land is drained or cleared, makes these areas very attractive to men with capital.

For the man with small capital, who expects to farm for what he can earn by his skill as a farmer, the best chance seems to be in established communities. Good farms can be leased in practically all parts of the State. Almost any type of farming can be found, from highly specialized, like the growing of fruit or vegetables, or dairying, to the most general types of farming. The man with limited capital should seek a farm in a community where he is familiar with the type of farming being followed. His first concern should be to fully equip himself for farming. A man only half equipped is working under too great a handicap. After allowing for enough machinery, live stock, and feed to bring him through the first season, he could then consider investment of

Where the Gasconade joins the Missouri. Beauty spots like this all over the State. Good fishing in all our rivers

any additional capital in land. If he has not had special training, he should follow diversified farming on a family sized farm. This means, generally, a two-man farm or anywhere from 160 to around 300 acres. One-man farms are harder to make money on, as farming does not adapt itself well to a one-man proposition. On this family sized farm he should provide for several sources of income to lessen the risk.

Under prices prevailing up to 1917, three to four thousand dollars would well equip any farmer for operating a diversified family sized farm. Specialized farming usually requires considerable more capital. For men who have little more than this minimum of capital, credit is usually easy to obtain. Any man contemplating starting farming must first of all keep his credit good in the community. Credit is one of his most useful articles of equipment for successful farming. In most communities men can purchase some land and rent additional land if necessary to make their business large enough for economical operation. A man will usually find himself a little later able to buy additional land to increase the size of his farm. *Ownership of land in a community stabilizes social and economic conditions for that community.*

The opportunity was never better for the man who knows something about farming. The prospective farmer should, however, keep these points in mind—equip himself before putting capital in land, rent or buy *good* land (it is always economical to strive through good husbandry for high yields and high quality of live stock.) maintain several sources of income, keep the land at work. If he observes these things the farmer of any experience should realize good wages for his efforts.

## Undeveloped Lands

M. F. Miller, Department of Soils

Missouri has considerable lands still undeveloped. The best of this is the poorly drained lands in the bottoms along the Mississippi and Missouri rivers with small areas in the bottoms of the larger streams of northern Missouri.

The southeast Missouri lowlands, comprising six solid counties of alluvial soils, contain the largest single area of undrained land although the larger part of these lowlands is now under the plow. Much of this soil is extremely fertile and some of the finest agricultural opportunities of the State may be found in this section. The completion of the drainage canals of the Little River Drainage district, a project costing several millions of dollars, will drain practically the entire remaining land in that region. This project has just been completed and the lands are rapidly being cleared, small farm ditches are being installed and the land brought into cultivation. This is the most rapidly developing part of Missouri.

A large area of undeveloped land is found in the Ozark region. This region comprises approximately one-fourth of the State and much of it is still undeveloped. This land has less native fertility than that of the lowlands and considerable of it is too rough to

Corn—first crop on cut-over land. Angora goats evidently helped in clearing and preparing this tract—a good job

allow of cultivation. Much of it is now covered with cut-over timber although considerable merchantable timber remains. The region is one of the great sources of railroad ties for the United States. With the exception of scattered tracts still owned by the State and used largely for forestry purposes, the land is in private hands. It is suited to a much wider development in dairying, cattle and hog growing, sheep growing and fruit growing than now prevails.

The most fertile land in the Ozark region is that of the valleys and creek bottoms, most of which is now under cultivation. The undeveloped land is the hill land. The region is one very different from that of the prairies in the northern part of the State and is suited to special types of farming. The newcomer in that region should select the types of farming suited to the land he buys.

## Southeast Missouri

A. I. Foard, Agricultural Extension Service

Southeast Missouri, more commonly known as the Modern Promised Land, comprises eight counties of the lowland district which has been reclaimed by a drainage system. The counties in this territory are Butler, Cape Girardeau, Dunklin, Mississippi, New Madrid, Pemiscot, Scott and Stoddard. Three thousand miles of drainage ditches have been constructed reclaiming 3,000,000 acres of fertile Mississippi River bottom land, which is the greatest reclamation project in the United States accomplished without government aid.

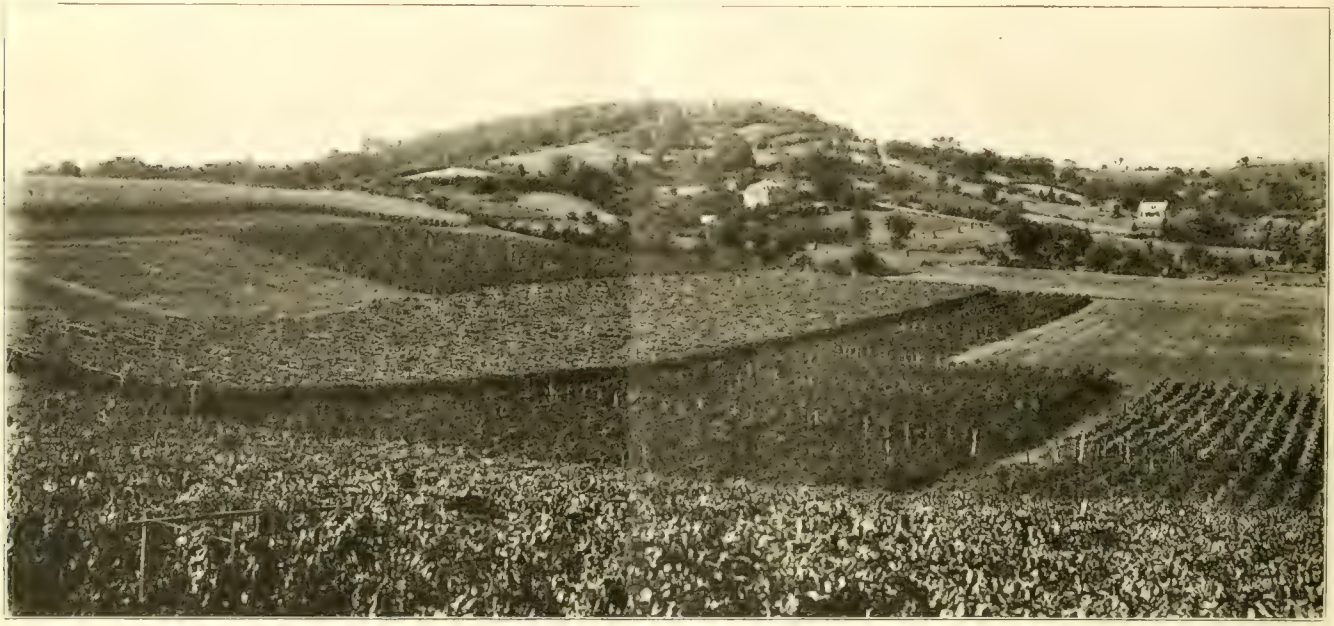
The leading crops in this section are wheat, corn, cotton, alfalfa, clover and cow peas. Five cuttings of alfalfa are common, and in many instances six and seven cuttings. Yields of the other crops are in the same proportion. Cow peas are sown following wheat and have plenty of time for maturity. Corn follows wheat and is used for silage. The long growing and grazing seasons make it especially adaptable for live-stock raising. Many pure-bred live-stock breeders are located in this territory.

The land lies as level as a floor and is fast being developed and there are wonderful opportunities for men who want to farm. Hard surface road systems are being constructed throughout the entire territory and a plan is now on to make the trunk line roads of concrete.

Every county in the district has a farm bureau and a county agent. The eight county farm bureaus are federated into one organization known as the Southeast Missouri Agricultural Bureau, with headquarters at Sikeston. This organization combines the interest of the farmer and the business men and has to do with the complete development of the section.

## Central Missouri

The region south of the Missouri River is so new that it can hardly be said even now that it has been fully discovered, for only a beginning has been made in the great work of its development.



A typical Missouri Ozark farm, showing results from intelligent farming. Millions of undeveloped acres are awaiting the molding hand of the home-maker

Here are the richest of the Missouri Valley lands, here are the finest hill lands along the Missouri bluffs, here are the most beautiful parts of the Ozarks, and, beyond the hills and streams, are miles and miles of the rich, black prairies that stretch away to the Kansas line—lands that until a short time ago were isolated from the railroads and little known to the eye of the homeseeker. This is a new corner of an old and proven country. You will find here in an undeveloped state the same kind of land that is producing big crops in northern Missouri, you will find the same kind of hills, awaiting the orchardist, that are everywhere yielding big crops of fruit, and you will find the same grain soils that in older sections command fancy prices—you will find all these lands at the right kind of prices. What the country needs is people.

The point that you want to get here at the outset of your investigations is that these lands are right in the very center of the nation and right in the middle of one of the greatest agricultural states. You know what this means to the farmer—markets and good prices for his products.

The country for 150 miles west of St. Louis is mainly a rugged hill country, much cut up by streams. The chief rivers are the Bourbeuse, the Gasconade and the Osage. The Gasconade is a deep set, swiftly flowing mountain stream. The Bourbeuse flows through a hilly country, particularly adapted to fruit. The Osage rises in southwest Kansas and flows north and east in a tortuous course, emptying into the Missouri. Each of these streams is largely supplied by numerous smaller streams, largely fed by fine springs. The many streams make most of the land very hilly. Where the land has not been cleared, it is heavily wooded, chiefly oak.

There are numberless rolling, well-drained fields on the hill tops, some of them with a large acreage, and other small patches of clearing among the trees. The river and creek bottoms are usually narrow. The mountainous character of the country, the wooded hills and the clear, spring-fed, rapid-flowing streams give much of this country great scenic beauty.

The land in the western sections is largely rolling prairie, frequently interspersed with uneven hilly sections. It is well watered and well wooded. There are many streams with narrow valleys and the most productive areas are the rich rolling uplands. The cultivated areas are thoroughly cleared of trees, brush and stumps and are farmed in large fields, the same as in prairie countries. The raw land is thickly wooded, largely with oak.

The entire territory is a natural bluegrass country. In the raw lands, wherever timber is thinned or the land is cleared, bluegrass spreads over the cultivated pastures and meadows without artificial seeding. The soil is chiefly a loam underlaid with a red limestone clay. The rougher lands are flinty. Some of the most hilly land is unfit for cultivation and some has very thin soil, but there are miles and miles of rich,

Direct from the orchard to the cars. Missouri apples are in demand all over the civilized world

rolling upland under a high state of cultivation that has made its owners wealthy from their horses, mules, fat cattle, hogs and poultry and from the wheat and corn. There are extensive areas of well-timbered land that, when cleared, will be very productive.

You can live in a country where the grass is green seven months in the year, where the average snowfall is only eighteen inches—just enough to let you know it is winter, and where the cold spells are short.

You can select rich, rolling land with a sightly place among grand old trees for your home. You can have a clear spring-fed stream through your pasture and shade trees for your cows. When your family want a vacation, they can have good fishing and hunting. You can supply your table from your own farm with apples, peaches, plums and berries.

Missourians are home loving. There is a home for every five persons in the State.

The health of the people on the prairies and in the hills is not excelled. The girls and women are particularly robust. The U. S. Bureau of Ethnology found that native Missourians are stronger and taller than the native citizens of any other state. The pure air, the good water, the abundance of sunshine and the always good living are responsible for the health and vigor.

Deer, quail, squirrels and wild turkeys are plentiful in the hill lands and the numberless streams afford good fishing.

The development of Central and Southeast Missouri has just begun. GO AND LOOK THE LAND OVER.

## COMPETING MARKETS

There on the east is St. Louis, with its 700,000 or more people, its factories and industries! There on the west are Kansas City and St. Joseph, with their factories, wholesale houses and packing plants. North and south are other cities, and all around are busy, hustling towns where the farmer can sell at a good profit his cattle and grain, his fruit and truck, his butter and eggs.

The Southeast and Central Missouri country, on account of the cheap land, mild climate and cheap pasture and feed, has special advantages for supplying the great southern markets. Florida, particularly in the winter tourist season, is a large consumer of Missouri dairy and poultry products, also New England and the Middle States.

Through Kansas City the three largest cities in Colorado—Denver, Colorado Springs and Pueblo—are reached direct by all the western trunk lines. Colorado people buy from states east $5,000,000 worth of dairy products a year. Over half of the dairy products used in New Mexico are shipped in and Texas people are heavy buyers of dairy products from other states. Southeast and Central Missouri have direct connection with all these great markets.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